

10/573793 IAP5 Rec'd PCT/PTO 28 MAR 2006

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hidefumi TAKAYA, et al.

Group Art Unit

(Unassigned)

Application No.

(Natl. Phase of PCT/JP2004/015179)

Examiner

(Unassigned

Filed

(Herewith)

Docket No.

13596/3

For

INSULATED GATE TYPE SEMICONDUCTOR DEVICE

AND MANUFACTURING METHOD THEREOF

INFORMATION DISCLOSURE STATEMENT

COMMISSIONER FOR PATENTS Customer Service Window Randolph Bldg. 401 Dulany Street Alexandria, VA 22314

Sir:

Pursuant to 37 CFR § 1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom. The filing of this Information Disclosure Statement and the enclosed PTO Form No. 1449, shall not be construed as an admission that the information cited is prior art, or is considered to be material to patentability as defined in 37 C.F.R. § 1.56(b). The paragraphs marked below are applicable. It is believed that no fees other than those indicated below are due, but authorization is hereby given to charge any additional fees due, or to credit any overpayment, to deposit account 11-0600.

1. This Information Disclosure Statement is being filed (a) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. §1.53(d), (b) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, (c) before the mailing date of a first Office Action on the merits in the present application, OR (d) before the mailing of a first office action after filing of a request for continued examination. No certification or fee is required.

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on the	2. This Information Disclosure Statement is this after the U.S. filing date AND after the mailing demonstrates, but before the mailing date of a final action that otherwise closes prosecution.	date of the first Office Action
	☐ a. I hereby certify that each item of in Information Disclosure Statement was first cited foreign patent office in a counterpart foreign app months prior to the filing of this Information Discl §1.97(e)(1).	in any communication from a lication not more than three
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	C. Please debit Deposit Account No. \$180.00 in payment of the fee under 37 CFR §1. of the disclosed information. Two duplicate copi 37 CFR §1.97(c)(2).	.17(p) to ensure consideration
prosecthat the Account 37 CF	3. This Information Disclosure Statement is of a final action, Notice of Allowance or an action to ecution, but before payment of the Issue Fee. Applithe Information Disclosure Statement be considered bunt No. 11-0600 in the amount of \$180.00 in paymer \$1.17(p) to ensure consideration of the disclosure of this paper are attached.	that otherwise closes licant(s) hereby request(s) ed. Please debit Deposit nent of the petition fee under
	☐ a. I hereby certify that each item of information Disclosure Statement was first cited foreign patent office in a counterpart foreign approaches prior to the filing of this Information Discl§1.97(e)(1).	in any communication from a lication not more than three
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□ prese	 Relevance of the non-English language reent specification. 	eference(s) is discussed in th
	5. The reference(s) was/were cited in a cour inglish language version of the foreign search reportance's information.	

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□ 6. A concise explanation of the relevance of the non-English language reference(s) appears in the Appendix attached hereto. 10/573793
7. The Examiner's attention is directed to co-pending U.S. Patent Application No, filed, which is directed to related technical subject matter. The identification of this U.S. Patent Application is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination of the present application.
8. This application is one of a series of related applications, identified in the attached Appendix, which are directed to related technical subject matter. The identification of those U.S. Patent Applications is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during the examination.
9. The reference(s) was/were cited by or submitted to the Office in parent application No filed, which is relied upon for an earlier filing date under 35 U.S.C. §120. However, since the IDS filed with the parent application was not considered, copies of the non-patent articles are enclosed.
☑ 10. English-language Abstracts are attached to the non-English language references.
☑ 11. No copies of U.S. patents are required.
☐ 12. Other: Four of the references were cited in the International Search Report.
Respectfully submitted,
Date: 28 March 2006 John C. Altmiller Reg. No. 25,951 KENYON & KENYON LLP 1500 K Street, N.W. Washington, D.C. 20005
Telephone: (202) 220-4200 Facsimile: (202) 220-4201

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Substitute for form 1449A/PTO Complete if Known Application Number (Natl. Phase of PCT/JP04/15179) INFORMATION DISCLOSURE Herewith 1 Filing Date STATEMENT BY APPLICANT Hidefumi YAKA First Named Inventor Art Unit (Unassigned) (Use as many sheets as necessary) Examiner Name (Unassigned)

Attorney Docket Number

of 2

			U.S. PATENT [DOCUMENTS		
Examiner	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevar	
Initials *		Number - Kind Code ² (if known)		Cited Document	Passages or Relevant Figures Appear	
	1	US-6,194,741 B1	02/27/01	KINZER et al.		
	2	US-2003/0160281 A1	08/28/03	CHEN		
	3	US-5,282,018	01/25/94	HIRAKI et al.	= JP 4251983	
	4	US-6,037,632	03/24/00	OMURA et al.	= JP9191109	
-	5	US-6,342,709 B1	01/29/02	SUGAWARA et al.	= JP 10098188	
	6	US-6,198,127 B1	03/06/01	KOCON	= JP 2000-353805	
	7	US-6,433,385 B1	08/13/02	KOCON et al.	= JP 2000-353805	
_	8	US-6,673,681 B2	01/06/04	KOCON et al.	= JP 2000-353805	
	9	US-2001/0000919 A1	05/10/01	KOCON	= JP 2000-353805	
	10	US-6,498,368 B2	12/24/02	SAKAMOTO et al.	= JP 2001-168327	
	. 11	US-6,465,844 B2	10/15/02	SAITO et al.	= JP 2002-100772	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	· T ⁶
	1	WO 00/70654	11/23/00	INFINEON TECHN, AG		
	2	WO 99/52152	10/14/99	HITACHI, LTD.		ABS
	3	JP 4-251983	09/08/92	TOSHIBA CORP	= US 5,282,018	· ABS
	4	JP 5-082792	04/02/93	TOSHIBA CORP		ABS
	5	JP 05-335582	12/17/93	OMRON CORP		ABS
	6	JP 06-013621	01/21/94	MITSUBISHI ELECTRIC CORP		ABS
	7	JP 07-083118	09/06/95	MITSUBISHI ELECTRIC CORP.	= EP 0 345 380	ABS
	8	EP 0 345 380 A2	12/13/89	MITSUBISHI DENKI KK	= JP 07 083118	ABS
	9	JP 09-191109	07/22/97	TOSHIBA CORP	= US 6,037,632	ABS
	10	JP 10-098188	04/14/98	KANSAI ELECTRIC POWER CO INC et al.	= US 6,342,709	ABS
	11	JP 11-068102	03/09/99	TOSHIBA CORP		ABS.
	12	JP 2000-216381 A	08/04/00	NISSAN MOTOR CO LTD		ABS
	13	JP 2000-260984 A	09/22/00	TOSHIBA CORP		ABS
	14	JP 2000-353805 A	12/19/00	INTERSIL CORP	= US 6,198,127 B1	ABS
	15	JP 2001-015744A	01/19/01	TOSHIBA CORP		ABS
	16	JP 2001-168327 A	06/22/01	HITACHI LTD	= US 6,498,368 B2	ABS
	17	JP 2001-267570 A	09/28/01	MITSUBISHI ELECTRIC CORP		ABS
	18	JP 2002-100772 A	04/05/02	TOKYO SHIBAURA ELECTRIC CO	= US 6,465,844 B2	ABS

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.qov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

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Substitute for form 1449B/PTO Complete if Known (Natl. Phase of PCT/JP04/15179) Application Number INFORMATION DISCLOSURE Filing Date (Here it) STATEMENT BY APPLICANT First Named Inventor Hidefum AKA Art Unit (Unassigned) (Use as many sheets as necessary) Examiner Name (Unassigned) of Sheet Attorney Docket Number 13596/3

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *					
	1	Saito, et al.: The Papers of Joint Technical Meeting on Electron Devices and Semiconductor Power Converter, IEE Japan, 11/28/02			
	*				
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Examiner	Date	
Signature	Considered	

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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^{&#}x27;Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.